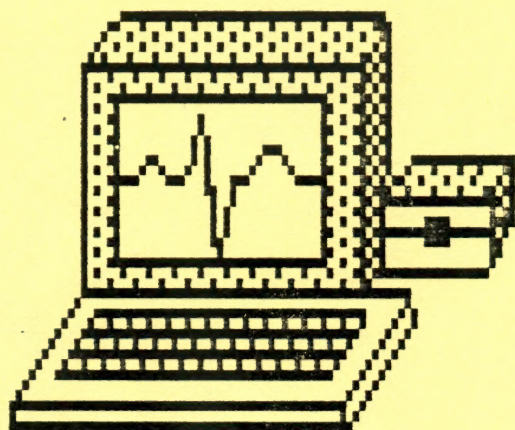
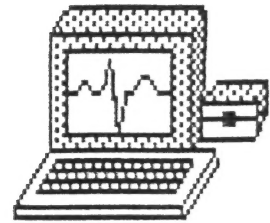


MAD SCIENTIST SOFTWARE



PROGRAM CATALOG

MAD SCIENTIST SOFTWARE



About Mad Scientist Software...

Mad Scientist Software is a medical software sales and development company. You've never heard of us, of course, because we're new. Once you've used our software, you'll remember us.

We're dedicated to making computer medical education fun, available, and affordable. Just try the "Cardiac Arrest!" simulator. You won't believe it runs on a microcomputer.

Mad Scientist Software offers continuing support to our customers. Backup disks are available to registered owners for \$5. Dead disks can be replaced for a \$6 service charge. You can order such supplies as flowsheets for the simulator through us. Updated versions of the software will be available as medical standards change.

For institutional users, Mad Scientist rents complete computer systems to run our software. Contact us for information.

Our somewhat unusual name was chosen long ago by the wife of our chief programmer. She said a company should be named in honor of its founder. We have no idea what she meant. If the name bothers you, though, just wait a while. We'll change the name to something respectable, like "Medical Educational Software Systems International", and triple our prices. Better buy now.

Mad Scientist Software
2063 North 820 West
Pleasant Grove, UT 84062
801-785-3028

Sample Graphics

The following are sample screens from the 8-bit Atari, dumped directly from screen to printer. This is what you can expect to see as you work with the Mad Scientist Software ACLS teaching software. Please note that the screens below are NOT from the same patient!

March 9
03:24

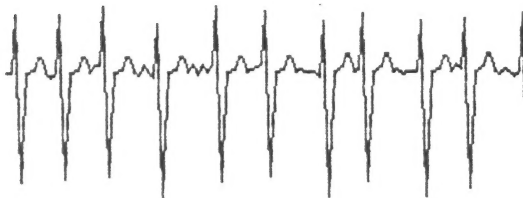
The patient is a 39 year-old ex-convict who weighs 64 kg. He was found in the bushes after a drunken party. A pulse was felt at the scene. There are needle tracks on the arms. His girl friend says that he takes antabuse off and on. He has been seen in the E.R. for chest pain in the past. He seems rather stiff. Pupils are small.



TIME: 9:43 RATE = 35 NO PULSE
C.P.R. BEING DONE

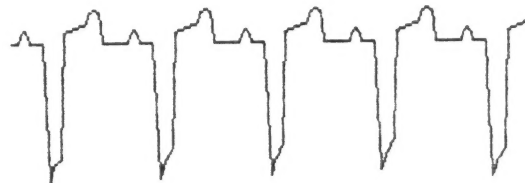
ORDERS: ?START AN I.V.■

Hit RETURN: ■



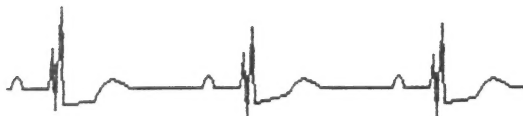
TIME: 14:05 RATE=182 FAINT PULSE
B.P.= 84/40 SHALLOW RESP. STUPOROUS

ORDERS: ?GIVE DIGOXIN, 0.5 MG IV STAT



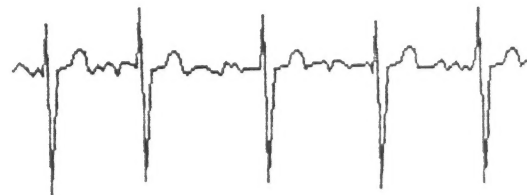
TIME: 11:20 RATE = 74 GOOD PULSE
B.P.= 150/98 GOOD RESP. AWAKE
8 PVC's per minute

ORDERS: ?LIDOCAINE 75 MG BOLUS



TIME: 2:13 RATE=39 FAINT PULSE
NO B.P. NO RESP. UNRESPONSIVE

ORDERS: ?GET ME A RECTAL TEMPERATURE



Diagnosis, learning points:

Chronic atrial fib, mitral valve disease,
new AV block: atropine+epi, then isuprel
Hit RETURN: ■



TIME: 10:23 RATE = 0 NO PULSE
C.P.R. BEING DONE

ORDERS: ?SHOCK HIM WITH 200 JOULES



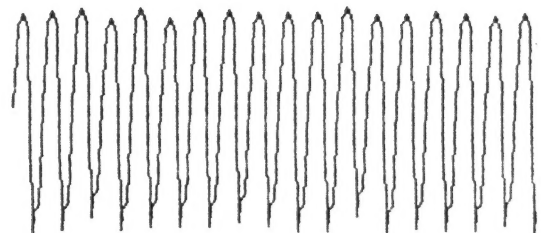
TIME: 23:15 RATE = 42 FAINT PULSE
B.P.= 35/0 OCC. RESP. UNRESPONSIVE

ORDERS: ?ATROPINE, 0.5 MG BY E.T. TUBE



TIME: 7:02 RATE = 56 FAIR PULSE
B.P.= 95/58 GOOD RESP. AWAKE

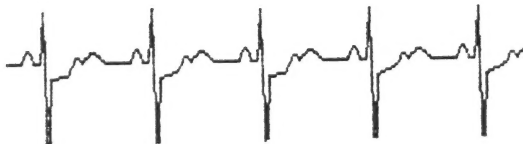
ORDERS: ?5 CC'S OF CALCIUM CHLORIDE



TIME: 17:39 RATE = 230 NO PULSE
C.P.R. BEING DONE

Patient still being hyperventilated!

ORDERS: ?DRAW ELECTROLYTES



Electrolytes back, drawn 15:43
Na+ 146 K+ 1.9 Cl- 98 HCO3- 23
Ca++ 8.2 Glu 143 BUM 12
Hit RETURN to continue:■

Final Outcome:

Mild neuro deficit, but able to work.

Problems:

ACIDOSIS NOT CORRECTED EARLY ENOUGH
FAILURE TO INTUBATE INCREASED DAMAGE
SUGGEST REVIEW EPINEPHRINE USE
DRUG COMBINATION ADVERSELY AFFECTED
HEART RATE
ATROPINE USED FOR WRONG RHYTHM
LIDOCAINE DRIP NEEDED

Hit RETURN: ■

CARDIAC ARREST!

Cardiac Arrest! is a true "mega-code" simulator--not an IF-THEN or CHOOSE A,B,C type program. A patient's history is presented, and the resuscitation efforts begin. You read the EKG on the computer screen, interpret the vital signs, and tell the head nurse what you want done. The effects of your order on the patient are calculated mathematically, and a new EKG and vital signs are printed.

As you try to resuscitate the patient, you type your "orders" in plain English, just as if you were saying them to a nurse. The program calculates patient status from base values, and throws in some random chance. You can order virtually anything you want in any way you want. The computer just follows orders.

Your final "score" on Cardiac Arrest! is: does the patient have enough brain cells left to function? You'll find out what becomes of your patient, and the computer will tell you about any therapeutic errors it found.

You can choose a patient according to category (easy, pediatric, or difficult), totally at random, or choose a specific problem for practice. There are 45 patient data files on the disk--enough for days of learning.

This simulator goes way beyond mere "ACLS." It poses difficult therapeutic priorities, and presents patients with problems beyond heart attacks--such as hypocalcemia, hypothermia, hyperkalemia, etc. It's more true-to-life than anything you've seen before. The teaching depth of the Cardiac Arrest! simulator makes it valuable for physicians as well as first-time learners.

DISK FOR: Atari 800, 800XL, 1200XL, 65XE, 130XE
MEMORY REQUIREMENTS: 48K
LANGUAGE: BASIC + 6502 MACHINE LANGUAGE
MANUAL: 52 pages = 9 general instruction pages,
 remainder medical reference material
PATIENTS ON DISK: 15 PEDIATRIC
 15 EASIER
 15 DIFFICULT

Institutional purchase orders, use stock #AT-01

Price: \$69 plus postage

PROTOCOL LEARNING

"Protocol Learning" is a disk containing three practice programs. Each practice consists of several patients. This disk is designed to teach the user the basic approach to rhythm disturbances in cardiac arrest.

A brief patient history is presented, and a sample EKG is plotted across the screen. The user then enters an order in plain English. No special commands or memorization (other than medical knowledge) are required. The computer compares the user's order to the appropriate algorithm for managing the patient's abnormal cardiac rhythm. If correct, the resuscitation proceeds, one step at a time. If incorrect, the user has two more tries before the computer gives the correct treatment step.

The user can review the treatment algorithm for the patient's rhythm either on-screen by typing "HELP", or in the manual. The manual includes a wealth of medical reference material.

The format of "Protocol Learning" is similar to the Cardiac Arrest simulator, but the patients are usually fairly uncomplicated. The disk does include practice at endotracheal drugs, and other "non-cookbook" situations. Not a true simulator, this disk forces the user to choose the correct treatment step each time for learning purposes.

DISK FOR: Atari 800, 800XL, 1200XL, 65XE, 130XE
MEMORY REQUIREMENTS: 48K
LANGUAGE: BASIC + 6502 MACHINE LANGUAGE
MANUAL: 36 pages = 5 general instruction pages,
remainder medical reference material
PROTOCOL PRACTICE (updated to 1987 standards) INCLUDES:
ASYSTOLE
BRADYCARDIA WITHOUT PULSE
BRADYCARDIA WITH PULSE
V-FIB/V-TACH WITHOUT PULSE
V-TACH WITH PULSE
PEDIATRIC ARREST
NEONATAL ARREST
ENDOTRACHEAL DRUGS
VENTRICULAR ECTOPY
CORRECTION OF ACIDOSIS
PAROXYSMAL SUPRAVENTRICULAR TACHYCARDIA

Institutional purchase orders use stock #AT-02

Price: \$29 plus postage

EKG TEACHING

The "EKG Teaching" disk teaches EKG rhythm strip interpretation from beginning to advanced level. There are teaching programs for EKG parts, rhythm recognition, and abnormality recognition. The user can test his knowledge with quizzing programs.

EKG patterns are drawn on screen, with important features pointed out for the user. The beginner can, for example, learn about RSR prime waves, depressed ST segments, and TU waves. The intermediate user can review recognition of V-tach, atrial fibrillation, and AV block. The advanced user can learn to recognize the telltale signs of hypocalcemia, hyperkalemia, and hypothermia.

The disk includes quizzes with feedback to reinforce learning. It's great for pathology recognition "beyond ACLS," such as hypokalemia, hyperkalemia, hypercalcemia, etc. However, it cannot teach certain complicated rhythm disturbances or subtle abnormality recognition because of the limitations of computer screen plotting.

DISK FOR: Atari 800, 800XL, 1200XL, 65XE, 130XE
MEMORY REQUIREMENTS: 48K
LANGUAGE: BASIC
MANUAL: brief instruction pamphlet

Institutional purchase orders use stock #AT-03

Price: \$29 plus postage

CardioQuiz

On the "CardioQuiz" disk, ACLS topics are taught in 10 self-teaching quizzes. These quizzes are fairly standard "computerized learning" fare. That is, it prints a question and says "choose A, B, C, or D". Then it gives feedback to teach the user.

The quizzes cover many ACLS topics. The disk includes airway management, IV techniques, cardiac drugs, Basic Life Support, case management, etc. Emphasis is on practical knowledge rather than "cheap shot" questions. Questions and feedback are based on a blend of ACLS manual informaton and clinical ER experience.

No guarantee is made that users will automatically pass the ACLS test. However, the clinical teaching on this disk is excellent.

Since "CardioQuiz" was first written, ACLS standards have changed dramatically. The disk has been updated twice, and now has the new 1987 standards. As part of Mad Scientist Software's disk owner service policy, you may receive a new (updated) disk at any time for only \$6.

DISK FOR: Atari 800, 800XL, 1200XL, 65XE, 130XE
MEMORY REQUIREMENTS: 16K
LANGUAGE: BASIC
MANUAL: brief instruction pamphlet

Institutional purchase orders use stock #AT-04

Price: \$19 plus postage

Misc. ACLS Topics

The "Misc. ACLS Topics" disk contains programs under development for later release. However, the teaching content is currently useful enough that we have made it available. Updates of these educational programs can be obtained later for a minimal fee.

There are three programs currently on the disk. A bicarbonate dosage tutorial gives practice at calculating bicarbonate replacement therapy based on blood gases. A drug dose calculation drill helps the user memorize doses of cardiac resuscitation drugs. There is also a blood gas tutorial program under development.

The bicarbonate dose tutorial teaches how to calculate acute and total bicarbonate replacement therapy. This is extremely practical, and not nearly as boring as it sounds. After using this program you'd be able to calculate how much bicarbonate to give a 42 kilogram person with a base excess of -9, acutely, and for total replacement.

The drug dose calculation drill covers lidocaine, epinephrine, bretylium, atropine, calcium, and dextrose. You're given the patient's weight and asked to calculate the dose in various units of measure, such as cc's or mg's. The practice proves its worth on pediatric cardiac arrests.

An arterial blood gas tutorial drills on recognition of normal values, Aa gradient calculation, and overall interpretation. This program is still under development, with the finished portion included on this disk.

DISK FOR: Atari 800, 800XL, 1200XL, 65XE, 130XE

MEMORY REQUIREMENTS: 48K

LANGUAGE: BASIC

MANUAL: brief instruction pamphlet

Institutional purchase orders use stock #AT-05

Price: \$19 plus postage

BULLETIN BOARD

This user-friendly disk allows the user to create colorful announcement screens. These screens can be linked together for a continually-cycling bulletin board program--especially valuable for institutions with closed-circuit TV.

The entire process of creating and manipulating announcement screens on disk is menu-driven. There's no memorization required. The process allows large color text as well as smaller text. Screens, and the custom programs of multiple screens, can be permanently stored on the disk.

This program provides another use for your Atari educational computer. Instead of sitting and waiting, it becomes a continuous information board for employees or public.

The instruction manual details how the computer can be attached to a video system. It includes information on adding radio or taped music over the video images.

DISK FOR: Atari 800, 800XL, 1200XL, 65XE, 130XE
MEMORY REQUIREMENTS: 48K
LANGUAGE: BASIC
MANUAL: brief instruction pamphlet

Institutional purchase orders use stock #AT-06

Price: \$19 plus postage

ST Users!

You've probably noticed that the ST version of our software is not listed in this catalog. We had anticipated having it market-ready by the time the Antic advertisement appeared, but in the meantime completely new Advanced Cardiac Life Support (ACLS) recommendations came out from the American Heart Association. Back to the drawing board.

We won't be offering the ST version until the new standards are in place and debugged. Our ST programmer says to expect another two months.

The 8-bit versions are completely compatible (thanks to hundreds of hours of re-writes) with the 1987 ACLS standards. Please be assured that we will continue to support the software with periodic updates, which (if you didn't notice on the first page) are available to registered disk owners for \$6.

Many hospitals, medical schools, and nursing schools are currently using our ACLS teaching software in the Atari 8-bit version. And, believe it or not, a lot of non-medical computer owners use the "Cardiac Arrest!" simulator as a real-life adventure game. You'll find that the "teaching value per buck" is incredible.

The ST version will have more "bells and whistles" than the 8-bit version, and will be well worth waiting for. Thanks for your patience.

Bruce Argyle MD
Mad Scientist

SOFTWARE ORDER FORM

Name: _____

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VISA/Mastercard orders:

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Or call 801-785-3028 for immediate shipment of Visa/MC order.

For ATARI 800/800XL/1200XL/65XE/130XE ONLY!

ATARI ST orders will be held until December 1, 1986

DISK	COMPUTER	PRICE	# COPIES	TOTAL DUE
Cardiac Arrest!		\$69		\$
Protocol Learning		\$29		\$
EKG Teaching		\$29		\$
CardioQuiz		\$19		\$
Misc. ACLS Topics		\$19		\$
Bulletin Board		\$19		\$
Flowsheets, 100 pack				
Other:		\$		\$
		\$		\$
		\$		\$
SUBTOTAL				\$
POSTAGE				\$ 2.00
TOTAL ENCLOSED:				\$

Orders paid with cashier's check, money order, or credit card are shipped immediately. Personal checks require three weeks for processing prior to shipping. All sales are final.

Send order to:

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Pleasant Grove, UT 84062

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		\$		\$
		\$		\$
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